

Attorney Docket No.: WARF-0002
Inventors: Laughon, Allen S.
Serial No.: 09/810,385
Filing Date: March 16, 2001
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This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method for identifying compounds that directly interact with a Smad protein or a DNA-binding Smad co-repressor protein to prevent protein-protein or protein-DNA interactions required for repression of transcription from genes induced by TGF- β , activin or bone morphogenetic protein signaling in cells comprising:

(a) detecting a first level of transcription of a reporter with a ~~Smad box-containing~~ TGF- β -dependent promoter in cells ~~containing~~ expressing interacting proteins comprising a Smad protein, a DNA-binding Smad co-repressor protein and a CtBP protein before addition of a test compound;

(b) contacting said cells with the test compound;

(c) detecting a second level of transcription of the reporter in the cells after addition of the test compound; and

(d) comparing the first level with the second level, wherein a decrease in the level of repression of transcription of the reporter in said cells after addition of the test compound is indicative of the ability of the test compound to interfere with transcriptional repression of genes induced by a TGF- β , activin or bone morphogenetic protein signal in cells.

Claim 2 (currently amended): The method of claim 1 wherein transcription levels of the reporter both before and after

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addition of the test compound are detected in cells ~~containing~~
expressing a Smad protein, a CtBP protein, and a DNA-binding Smad
co-repressor protein selected from the group consisting of Evi-1,
TGIF, SIP1, and Schnurri.

Claim 3 (original): The method of claim 1 wherein the Smad
protein is *Drosophila* Mad or Medea.

Claim 4 (currently amended): The method of claim 1 wherein
the CtBP protein is dCtBP, CtBP2 or a functional mammalian
homologue of dCtBP.

Claims 5-8 (canceled).